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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,334	03/31/2004	Reg Yang	2011154	8807

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PRO-TECHTOR INTERNATIONAL
20775 Norada Court
Saratoga, CA 95070-3018

EXAMINER

RIGGLEMAN, JASON PAUL

ART UNIT	PAPER NUMBER
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1792

MAIL DATE	DELIVERY MODE
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01/22/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/816,334	Applicant(s) YANG ET AL.	
	Examiner Jason P. Riggelman	Art Unit 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 August 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>Foreign reference</u> . |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/31/2007 has been entered.

Status of Claims

Applicant's reply filed on 8/31/2007 is acknowledged. Current pending claims are 1-10. Claims 1 and 6-7 are amended. Claims 8-10 are new.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6 and 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Shiba et al. (JP4249203).

Shiba et al. teaches a cleaning system which comprises a combination of a substrate (combination of 8 and 7) and a frame layer (10b) arranged on the substrate to form a chamber together with the substrate, Figs. 2, 5, & 8. A sealed up body is formed with a cleaning room and fixed to an upper *portion* (jig 7) of the sealed up body with the chamber facing downwards, Fig. 4. A first nozzle (11) is disposed in the cleaning room of the sealed up body and is disposed below the combination of the substrate and the

frame layer for jetting out a cleaner in the form of a stream moving in "one and only one direction" toward the chamber and the combination of the frame layer and substrate to clean the chamber and the combination of the substrate and the frame layer (Note: that the "one and only one direction is **not perpendicular** to the bottom surface of the substrate" because at any given moment the liquid is moving in one and only direction, an object cannot move in two directions at the same time, and the "fanning" of the jetted liquid as shown in Fig. 6 indicates the direction of the jetted liquid cannot be considered perpendicular to the substrate since it has multiple directions). The sealed up body includes a lower element, a periphery wall (36) connected to the lower element, and an upper cover (9) connected to the periphery wall and the substrate is fixed to the upper cover (9), Fig. 8. A second nozzle (12) is disposed in the cleaning room. A sucking port (exhaust port 9a) for sucking the cleaner and the sucking port is disposed "*between*" the first nozzle and second nozzle. The substrate has a side edge aligned with a side edge of the frame layer (they are parallel).

In regards to claims 4-5, it is fundamental that an apparatus claim defines the structure of the invention and not how the structure is used in a process, or what materials the structure houses in carrying out the process. *Ex parte Masham*, 2 USPQ2d 1647, 1648 (BPAI 1987). See also *In re Yanush*, 477 F.2d 958, 959, 177 USPQ 705,706 (CCPA 1973); *In re Finsterwalder*, 436 F.2d 1028, 1032, 168 USPQ 530, 534 (CCPA 1971); *In re Casey*, 370 F.2d 576, 580, 152 USPQ 235,238 (CCPA 1967). As long as the apparatus of Shiba et al. is capable of delivering water or nitrogen, the prior art apparatus meet the requirements of the claimed feature.

Applicant has not established on this record any structural distinction between apparatus within the scope of the rejected claims and the apparatus fairly described by Shiba et al., and no such structural distinction is apparent.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shiba et al. (JP4249203).

Shiba et al. does not teach a vacuum pump connected to the exhaust port (sucking port); however, it has been held that an obvious choice in design is not patentable (*In re Kuhle* 188 USPQ 7). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Shiba et al. to create a substrate cleaning device with a vacuum for removing contaminated fluid to achieve the expected result.

Response to Arguments

Applicant's arguments with respect to claims 1-7 have been considered but are moot in view of the new ground(s) of rejection. The 112 second paragraph rejections of the claims are withdrawn in view of the amendments.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Masahiko (Japanese Patent Application Publication No. 59-150451) teaches a glass-sealed type semiconductor device. Shih (US Patent Application Publication No. US2002/0036004) teaches a substrate cleaning apparatus with two angled nozzles and an outlet between the nozzles.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason P. Riggleman whose telephone number is 571-272-5935. The examiner can normally be reached on M-F, 8:30-5:00.

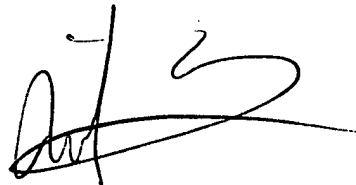
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on 571-272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Jason P Riggleman
Examiner
Art Unit 1792

JPR

A handwritten signature in black ink, appearing to read 'Michael Barr', with a stylized flourish extending to the right.

MICHAEL BARR
SUPERVISORY PATENT EXAMINER